

REMARKS

This amendment responds to the office action mailed July 7, 2005. In the office action the Examiner:

- rejected claims 1-20 as being indefinite under 35 U.S.C. §112, second paragraph; and
- rejected claims 1-20 under 35 U.S.C. 102(b) as anticipated by Lin (US 2001/0020216).

After entry of this amendment, the pending claims are: claims 1-20.

Overview of Changes to the Claims

Claims 1, 9 and 17 have been amended to address concerns raised by the Examiner and thereby clarify the claimed invention. In particular, the phrase “a situation” has been removed from claims 1 and 17, and the preamble has been modified to correct the resulting syntax. In claim 9, the phrase “that is unavailable” has been added. Support is found in the preamble of claim 9. These amendments do not, therefore, introduce new matter.

Detailed Response 35 U.S.C. §112

In the present office action, the Examiner has rejected claims 1, 9 and 17 as being indefinite. Claims 1 and 17 have been amended in the present reply to clarify the claimed invention and remove the phrase “a situation.” The Applicants, however, disagree with the Examiner’s assertion that “a time period” in the preamble of these claims is indefinite. The time period is the specific “time period in which signals from a respective satellite on the first frequency are lost,” as claimed in these claims. As such, the time period is properly defined. Removal of this ground for rejection is requested.

In claim 9, “are available” in the preamble is correct since it refers to signals, which is plural. Claim 9 has been amended in the present reply to indicate that the synthesized carrier-phase measurement is generated for the one of the two frequencies that is unavailable, thereby clarifying the meaning of “another one of the two carrier frequencies” later in the claim. Removal of this ground for rejection is requested.

Detailed Response 35 U.S.C. §102(b)

In the present office action the Examiner has rejected claims 1-20 as anticipated by Lin. The Applicants disagree and traverse.

Independent claims 1, 9 and 17, include the limitations of

performing backup navigation during the time period by **synthesizing a carrier-phase measurement** on the first frequency from a carrier-phase measurement on the second frequency and from the **corrections to the ionospheric model computed prior to the time period** [emphasis added].

Lin does not teach or disclose these limitations. In particular, Lin is directed to a multi-mode navigation system based on a combination of an inertial measurement unit (such as a gyroscope), GPS signals and a Kalman filter. While Lin has an ionospheric model 501 (p. 8, paragraph 153), Lin does teach or suggest correcting the ionospheric model using GPS signals as claimed herein. In addition, when signals at a first frequency are lost, Lin does not synthesize a carrier-phase measurement (see for example in Lin, p. 8, paragraphs 148-151 and p. 10, paragraphs 174-179). Since Lin does not disclose or teach these limitations, it does not anticipate the independent claims. Since dependent claims include the limitations of their parent independent claims, Lin does not anticipate these claims, either. Removal of this ground for rejection is requested.

The Applicants also note that the rejections made by the Examiner in the present office action are improper. Per 37 C.F.R. 1.104c(2), the Examiner should “designate as nearly as practical” the particular part of the reference relied upon. In the present office action, the Examiner referred to Figs. 5-11 and pp. 6-12 (i.e., the entire specification) of Lin for alleged support corresponding to each of the limitations in all of the pending claims. The Applicants respectfully request the Examiner to provide specific support in any applied prior art in future office actions.

Prior Art Made of Record

The Examiner indicates that several reference (US 006664923, US 2005/0080560, US 005416712, US 005805108 and US 006311129) not relied upon are considered pertinent to the present application. Under 37 CFR 1.111(b), “(t)he reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references” (emphasis added). It is respectfully noted that the office action did not apply any of these listed references to any of the pending

claims. Nevertheless, the applicant observes that none of these cited references discloses or teaches alone or in combination all the limitations of the pending claims.

CONCLUSION

In light of the above amendments and remarks, the Applicant respectfully requests that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney at (650) 843-7501, if a telephone call could help resolve any remaining items.

Respectfully submitted,

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